ABSTRACT

METHODS AND APPARATUS FOR EMBEDDING DATA AND FOR DETECTING AND RECOVERING EMBEDDED DATA

An apparatus for embedding data in information material, the data being a plurality of data items each having a different relative importance. The apparatus comprises an encoding processor operable to encode each of said data items, and a combining processor operable to combine said encoded data items with said information material. The information material provides a limited data embedding capacity, as a result for example of the limited bandwidth of the information material itself. Each of the data items are encoded and embedded to the effect that a proportion of the limited data embedding capacity is allocated to the encoded data items in accordance with the relative importance of these data items. As such, for example, an amount of error protection given to each of the data items can be arranged in accordance with the importance of the data items, whilst still satisfying the limited data embedding capacity. Accordingly, a greater amount of protection can be provided to the more important data items, thereby making these items more robust with respect to any processing of the information material and more likely to be recovered correctly.

[Fig 3]